

08321-110PC2 SEQLIST.txt

SEQUENCE LISTING

<110> Thomas Jefferson University

<120> RECOMBINANT ANTIBODIES AND COMPOSITIONS
AND METHODS FOR MAKING AND USING THE SAME

<130> 08321-110PC2

<150> US 10/461,148

<151> 2003-06-13

<160> 24

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 474

<212> PRT

<213> Human

<400> 1

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Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35      40      45
Ser Asn Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50      55      60
Glu Trp Val Ser Ala Ile Ser Ala Ser Gly His Ser Thr Tyr Leu Ala
 65      70      75
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
 85      90      95
Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100      105      110
Tyr Tyr Cys Ala Lys Asp Arg Glu Val Thr Met Ile Val Val Leu Asn
115      120      125
Gly Gly Phe Asp Tyr Trp Gly Gln Gly Thr Arg Val Thr Val Ser Ser
130      135      140
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
145      150      155
Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
165      170      175
Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
180      185      190
Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
195      200      205
Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
210      215      220
Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
225      230      235
Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
245      250      255
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
260      265      270
Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
275      280      285
Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
290      295      300
Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
305      310      315
Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
320

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His Gln Asp Trp 325 Leu Asn Gly Lys Glu 330 Tyr Lys Cys Lys Val 335 Ser Asn
 Lys Ala Leu Pro 340 Ala Pro Ile Glu 345 Lys Thr Ile Ser Lys 350 Ala Lys Gly
 Gln Pro 355 Arg Glu Pro Gln Val 360 Tyr Thr Leu Pro Pro 365 Ser Arg Glu Glu
 Met Thr Lys Asn Gln Val 375 Ser Leu Thr Cys Leu Val 380 Lys Gly Phe Tyr
 385 Pro Ser Asp Ile Ala Val 390 Glu Trp Glu Ser 395 Asn Gly Gln Pro Glu Asn
 Asn Tyr Lys Thr 405 Thr Pro Pro Val 410 Leu Asp Ser Asp Gly Ser 415 Phe Phe
 Leu Tyr Ser 420 Lys Leu Thr Val 425 Asp Lys Ser Arg Trp Gln 430 Gln Gly Asn
 Val Phe 435 Ser Cys Ser Val 440 Met His Glu Ala Leu His 445 Asn His Tyr Thr
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 465 470

<210> 2
 <211> 234
 <212> PRT
 <213> Human

<400> 2
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 Leu Ser Pro Gly Glu Arg Ala Thr Leu Ala Cys Arg Ala Ser Gln Thr
 35 40 45
 Ala Ser Arg Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
 50 55 60
 Arg Leu Leu Ile Tyr Asp Thr Ser Asn Arg Ala Thr Gly Ile Pro Ala
 65 70 75 80
 Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser
 85 90 95
 Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Phe
 100 105 110
 Asn Trp Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Phe Lys Arg
 115 120 125
 Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
 130 135 140
 Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
 145 150 155 160
 Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
 165 170 175
 Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
 180 185 190
 Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
 195 200 205
 His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
 210 215 220
 Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 225 230

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 <212> DNA
 <213> Human

<400> 3
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 <213> Human

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 35 40 45
 Ser Thr Ser Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys
 50 55 60
 Ala Leu Glu Trp Val Thr Leu Ile Tyr Trp Asp Asp Lys Arg Tyr
 65 70 75 80
 Ser Pro Ser Leu Glu Asn Arg Val Thr Ile Arg Lys Asp Thr Ser Lys
 85 90 95
 Asn Gln Val Ala Leu Thr Met Thr Asn Met Asp Pro Leu Asp Thr Gly
 100 105 110
 Thr Tyr Tyr Cys Ala His Arg Gln His Ile Ser Ser Phe Pro Trp Phe
 115 120 125
 Asp Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr
 130 135 140
 Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser
 145 150 155 160
 Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
 165 170 175
 Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
 180 185 190
 Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
 195 200 205
 Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Thr Cys
 210 215 220
 Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
 225 230 235 240
 Leu Lys Thr Pro Leu Gly Asp Thr Thr His Thr Cys Pro Arg Cys Pro
 245 250 255
 Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu
 260 265 270
 Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu Pro
 275 280 285

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Lys	Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro	Ala	Pro	Glu
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Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp
305					310					315					320
Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp
				325					330						
Val	Ser	His	Glu	Asp	Pro	Glu	Val	Gln	Phe	Lys	Trp	Tyr	Val	Asp	Gly
			340					345							
Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn
			355				360					365			
Ser	Thr	Phe	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp
						375					380				
Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro
385					390					395					400
Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Thr	Lys	Gly	Gln	Pro	Arg	Glu
				405					410						
Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn
			420					425							
Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile
			435				440								
Ala	Val	Glu	Trp	Glu	Ser	Ser	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Asn	Thr
			450			455					460				
Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys
465					470					475					480
Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Ile	Phe	Ser	Cys
				485					490						
Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	Arg	Phe	Thr	Gln	Lys	Ser	Leu
			500					505					510		
Ser	Leu	Ser	Pro	Gly	Lys										
			515												

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 <212> DNA
 <213> Human

<400> 5

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tgtgggggaa	acaacattga	atatagaagt	gtgcactggg	accagcagaa	gtcaggccag	180
gcccctgtag	cggatcatcta	tgataatagt	gaccggccct	cagggatccc	tgagcgattc	240
tctggttcca	aattctgggaa	cacggccacc	ctgaccatca	gcaggggtcga	agccggggat	300
gaggccgact	attactgtca	ggtgtgggat	attagtagtg	atgtgtgtctt	cggcggaggg	360
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accaccacac	cctccaaaca	aagcaacaac	aagtacgcgg	ccagcagcta	tctgagcctg	600
acgcctgagc	agtgggaagc	ccacagaagc	tacagctgcc	aggtcacgca	tgaagggagc	660
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<210> 6
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 <212> PRT
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<400> 6

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			20					25				30			
Pro	Gly	Lys	Thr	Ala	Arg	Ile	Asn	Cys	Gly	Gly	Asn	Asn	Ile	Glu	Tyr
			35				40					45			
Arg	Ser	Val	His	Trp	Tyr	Gln	Gln	Lys	Ser	Gly	Gln	Ala	Pro	Val	Ala
			50			55					60				
Val	Ile	Tyr	Asp	Asn	Ser	Asp	Arg	Pro	Ser	Gly	Ile	Pro	Glu	Arg	Phe
65					70					75					80

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Ser	Gly	Ser	Lys	Ser	Gly	Asn	Thr	Ala	Thr	Leu	Thr	Ile	Ser	Arg	Val
				85					90					95	
Glu	Ala	Gly	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Gln	Val	Trp	Asp	Ile	Ser
			100					105					110		
Ser	Asp	Val	Val	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly	Gln
		115					120					125			
Pro	Lys	Ala	Ala	Pro	Ser	Val	Thr	Leu	Phe	Pro	Pro	Ser	Ser	Glu	Glu
	130					135					140				
Leu	Gln	Ala	Asn	Lys	Ala	Thr	Leu	Val	Cys	Leu	Ile	Ser	Asp	Phe	Tyr
145					150					155				160	
Pro	Gly	Ala	Val	Thr	Val	Ala	Trp	Lys	Ala	Asp	Ser	Ser	Pro	Val	Lys
				165					170					175	
Ala	Gly	Val	Glu	Thr	Thr	Thr	Pro	Ser	Lys	Gln	Ser	Asn	Asn	Lys	Tyr
			180					185					190		
Ala	Ala	Ser	Tyr	Leu	Ser	Leu	Thr	Pro	Glu	Gln	Trp	Lys	Ser	His	
		195				200						205			
Arg	Ser	Tyr	Ser	Cys	Gln	Val	Thr	His	Glu	Gly	Ser	Thr	Val	Glu	Lys
	210					215					220				
Thr	Val	Ala	Pro	Thr	Glu	Cys	Ser								
225					230										

<210> 7
 <211> 242
 <212> PRT
 <213> Human

<400> 7

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			20					25					30		
Ser	Val	Ser	Gly	Ser	Pro	Gly	Gln	Ser	Val	Thr	Ile	Ser	Cys	Thr	Gly
		35					40					45			
Thr	Ser	Ser	Asp	Ile	Gly	Gly	Tyr	Asn	Phe	Val	Ser	Trp	Tyr	Gln	Gln
	50				55					60					
His	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Met	Ile	Tyr	Asp	Ala	Thr	Lys	Arg
65					70				75					80	
Pro	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly	Asn	Thr
				85					90					95	
Ala	Ser	Leu	Thr	Ile	Ser	Gly	Leu	Gln	Ala	Glu	Asp	Glu	Ala	Asp	Tyr
			100					105					110		
Tyr	Cys	Cys	Ser	Tyr	Ala	Gly	Asp	Tyr	Thr	Pro	Gly	Val	Val	Phe	Gly
		115					120					125			
Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly	Gln	Pro	Lys	Ala	Ala	Pro	Ser
	130					135					140				
Val	Thr	Leu	Phe	Pro	Pro	Ser	Ser	Glu	Glu	Leu	Gln	Ala	Asn	Lys	Ala
145					150					155				160	
Thr	Leu	Val	Cys	Leu	Ile	Ser	Asp	Phe	Tyr	Pro	Gly	Ala	Val	Thr	Val
				165					170					175	
Ala	Trp	Lys	Ala	Asp	Ser	Ser	Pro	Val	Lys	Ala	Gly	Val	Glu	Thr	Thr
			180					185					190		
Thr	Pro	Ser	Lys	Gln	Ser	Asn	Asn	Lys	Tyr	Ala	Ala	Ser	Ser	Tyr	Leu
		195				200						205			
Ser	Leu	Thr	Pro	Glu	Gln	Trp	Lys	Ser	His	Arg	Ser	Tyr	Ser	Cys	Gln
	210					215					220				
Val	Thr	His	Glu	Gly	Ser	Thr	Val	Glu	Lys	Thr	Val	Ala	Pro	Thr	Glu
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Cys	Ser														

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 <212> DNA
 <213> Human

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<400> 8

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<210> 9

<211> 476

<212> PRT

<213> Human

<400> 9

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20      25      30
Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe
35      40      45
Asn Arg Tyr Thr Val Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50      55      60
Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala
65      70      75      80
Gln Arg Phe Gln Gly Arg Leu Thr Ile Thr Ala Asp Glu Ser Thr Ser
85      90      95
Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val
100      105      110
Tyr Phe Cys Ala Arg Glu Asn Leu Asp Asn Ser Gly Thr Tyr Tyr Tyr
115      120      125
Phe Ser Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val
130      135      140
Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser
145      150      155      160
Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys
165      170      175
Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu
180      185      190
Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu
195      200      205
Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Leu Gly Thr
210      215      220
Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val
225      230      235      240
Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro
245      250      255
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
260      265      270
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

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Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
      290      295      300
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305      310      315
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
      325      330      335
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
      340      345      350
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
      355      360      365
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
      370      375      380
Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
385      390      395
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
      405      410      415
Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
      420      425      430
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
      435      440      445
Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
      450      455      460
Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465      470      475

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<210> 10
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 <212> DNA
 <213> Human

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 gggaccaagg tggattcaa acgaactgtg gctgcaccat ctgtcttcat cttcccacca 420
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 <212> DNA
 <213> Human

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 <211> 729
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 <213> Human

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<400> 12
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aagtacgcgg ccagcagcta cctgagcctg acgcctgagc agtggaagtc ccacagaagc 660
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tgttcatag 729

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<210> 13
 <211> 33
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Primer

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<400> 13
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<210> 14
 <211> 34
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Primer

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<400> 14
aacgtacgat ggacacactt tgctccacgc tcct 34

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<210> 15
 <211> 35
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Primer

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<400> 15
aaacgtacga ccatggactg gacctggagg ttctt 35

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<210> 16
 <211> 49
 <212> DNA
 <213> Artificial sequence

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<220>
 <223> Primer
 <400> 16
 tgctaggggt gttagttttt ttcattgactc atttaccgga ggacagggga 49
 <210> 17
 <211> 56
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Primer, where n is a 5' end of light chain cDNAs
 <221> misc_feature
 <222> (1)...(56)
 <223> n = A,T,C or G
 <400> 17
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 <210> 18
 <211> 34
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Primer
 <400> 18
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 <210> 19
 <211> 36
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Primer
 <400> 19
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 <210> 20
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 <211> 29
 <212> DNA
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 <223> Primer
 <400> 21
 cctctagatt acagtctggt ctcaccccc 29
 <210> 22

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<211> 33
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<220>
<223> Primer

<400> 22
cccgggttaa cagaagagtc aatcgatcag aac 33

<210> 23
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<213> Artificial Sequence

<220>
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<400> 23
ttaagttaac caagaatagt ccaatga 27

<210> 24
<211> 34
<212> DNA
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<220>
<223> Primer

<400> 24
tctcgagccc gggactatga agtgcctttt gtac 34